

REMARKS

Reconsideration and allowance of this application are respectfully requested in light of the above amendments and the following remarks.

Non-elected claims 4-7 are now canceled. The Applicants expressly reserve their rights to file divisional application(s) claiming the benefits afforded by 35 U.S.C. 119, 120 and 121.

Claims 1 and 3 remain pending.

Claims 1 and 3 stand rejected under 35 U.S.C. 103(a) as obvious over Kasahara (JP 2001-291509). The Applicants respectfully traverse these rejections based on the points set forth below.

The Office Action asserts that Kasahara discloses a nickel metal hydride battery, wherein the amount of fluororesin powder is in the range of 5-100 μm (citing Kasahara's Claim 5).

The Applicants note that the Office Action is correct that Kasahara does not disclose a particle diameter as set forth in the instant claims of 0.05-1.0 μm .

The Office Action asserts that Kasahara discloses that the specific surface area of a fluororesin is increased by supplying the fluororesin, dispersed in an organic solvent, onto the negative electrode of the battery in the form of a "fine powder" (citing paragraph 0033).

However, the Applicants note that the term "fine powder" is relative, and by the term "fine powder" as used by Kasahara, it is clear that the powder particles are clearly within the range of 5-100 μm as disclosed in the reference.

However, the amount of the claimed invention is orders of magnitude less than Kasahara and completely outside of Kasahara's disclosed range.

Kasahara does not disclose or suggest any lower limit of the particle diameter other than 5 μm as noted by the Office Action.

However, as disclosed in the present specification, when the particle diameter is too small, a dense film-like layer is apt to be formed on the surface of the hydrogen absorbing alloy negative electrode. And, as a result, wettability of the surface of the negative electrode with liquid becomes low, and the amount of hydrogen present in the surface portion of the electrode decreases to cause deterioration of absorbability of oxygen gas (see, specification, page 7, line 26 to page 8, line 5).

Thus, following the reasoning set forth in the office action, Kasahara's teachings of a "fine powder" would exceed the lower limit of the material of the Applicant's claimed invention, because Kasahara does not provide any teachings of what he means by the relative term "fine powder." Kasahara certainly does not

disclose or suggest the importance of a lower limit of the present invention, i.e., 0.05 μm .

The Office Action states that "discovering an optimum value or workable ranges of a result-effective variable involves only routine skill in the art, and thus not novel. *In re Boesch*, 205 USPQ 215 (CCPA 1980). See MPEP 2144.05." It is submitted that this cited case and portion of the MPEP are not persuasive in the present situation, for the following reasons.

First, the novelty of the instant claimed invention is not in question as the rejection has been modified from a 35 U.S.C. 102 to a 35 U.S.C. 103(a) rejection. Thus, the Office Action has already conceded that the invention is novel.

That the claimed invention is non-obvious is also clear because, as noted above, Kasahara provides no teachings for the definition of the term "fine powder," and does not specifically teach the lower limit of the Applicants' claimed invention of 0.05 μm and furthermore, Applicants' specification has shown that beyond the limit of 0.05 μm negative results, i.e., wettability of the surface of the negative electrode with liquid becomes low and the amount of hydrogen present in the surface portion of the electrode decreases to cause the deterioration of absorbability of oxygen gas, as set forth in the instant specification, beginning at page 7, line 26.

For all the foregoing reasons, the Applicants respectfully submit that Kasahara does not provide a *prima facie* case of obviousness of the present claimed invention under 35 U.S.C. 103(a), and withdrawal of the rejection is respectfully requested.

Reconsideration and withdrawal of the previous rejection of Claims 1 and 3 under 35 U.S.C. 103(a) as obvious over Kasahara above in view of Yamana (U.S. Patent No. 6,068,921) is respectfully requested. Applicants' comments regarding Kasahara are noted above.

Yamana is directed to carbon fluoride particles in which an average particle size is 0.01 to 50 μm . It is alleged that these particles have an excellent dispersibility and powder flowability and can be used in nickel/hydride storage batteries. Based on this teaching, the Office Action alleges that it would have been obvious at the time of the invention was made to make carbon fluoride particles of the size taught by Yamana for the benefit of obtaining excellent dispersibility.

However, as noted above, excellent dispersibility is not the property being sought. When the particle diameter is too small, a dense film-like layer is apt to form on the surface of the hydrogen absorbing alloy negative electrodes, and as a result, wettability of the surface of the negative electrode with liquid

becomes low, and the amount of hydrogen present in the surface portion of the electrode decreases to cause deterioration of absorbability of oxygen gas (see, the present specification at page 7, line 26 to page 8, line 5.

Yamana does not recognize the defect in having a particle diameter too small in which negative results are achieved, even though dispersibility is high. The particle diameter of Yamana being as small as 0.01 μm would not achieve the results of the present invention or overcome the problems solved herein; when viewing the limits of Kasahara and Yamana, it is clear that Kasahara has a range twice as large as Yamana in the upper limit "100 μm of Kasahara versus 50 μm of Yamana". Thus, even the combination of Kasahara and Yamana, absent the teachings of the properties achieved by the claimed invention, would not have lead one skilled in the art to the claimed range, i.e., 0.05 μm to 1.0 μm .

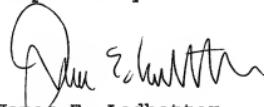
The Examiner has only concentrated on the effect of "excellent dispersibility"; see the last paragraph of rejection regarding the combination of Kasahara in view of Yamana ending on page 5 of the Office Action. But neither the references, nor the Examiner, realizes that in achieving "excellent dispersibility" the very properties for which the fluorocarbon resin is desired are defeated, because the surface portion of the electrode

decreases to cause deterioration of absorbability of oxygen gas reducing the properties of the battery. The fact that neither Kasahara nor Yamana individually, or in combination, recognize such deterioration makes Applicants' invention not only novel, but also unobvious under 35 U.S.C. 103(a).

In view of the above, it is submitted that this application is in condition for allowance, and a notice to that effect is respectfully solicited.

If any issues remain which may best be resolved through a telephone communication, the Examiner is requested to telephone the undersigned at the local Washington, D.C. telephone number listed below.

Respectfully submitted,



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